Abstract

Title of the thesis:

Identifiers of the hypokinetic stress while driving a car

Objectives:

This work is part of a long - term study in the field of detection of mechanical features of the spine by TVS (Transfer Vibration through Spine), mainly for diagnostic purposes. The aim is to contribute to the further development and testing of the method. The essential aim is to find such quantitative identifiers, which enable reliable and clear assessment of the qualitative changes in the features of the spine during the given stress (driving a truck).

Method:

The theoretical part of the thesis consists of literature review, theoretical analysis of the method and characteristics of the mechanical features of the spine. The practical part is performed in the form of an experimental pilot study dealing with the effect of hypokinetic stress (driving a truck) on the change of the parameters of the rheological features of the axial system of an individual human.

Results:

As part of this work, the TVS methodology was tested to determine the current status of truck drivers, which proved to be sensitive enough. The work was able to define appropriate quantifiers to assess qualitative changes in features of the spine. The overall attenuation of the spine decreased by ride from the original value of 1015:1 to 626:1.

Keywords: TVS method, vibration, hypokinetic stress, acceleration, driving, LBP